

# Trimble TSC5

## CONTROLLER



### KEY FEATURES

- ▶ Back-lit international alphanumeric keypad with directional keys
- ▶ 12 programmable function keys
- ▶ Function, Shift and AGr key combinations
- ▶ Ergonomic design, easy to grip and carry, less handling fatigue
- ▶ All day battery, with user-replaceable battery option
- ▶ 5-inch multi-touch screen—with finger, stylus and glove modes
- ▶ Bright, anti-glare display, readable in sunlight and lowlight conditions
- ▶ Military-spec rugged design, IP65 rated
- ▶ Android™ 10 operating system
- ▶ Google Mobile Services certified with access to Google Play™ store apps
- ▶ Optimized for Trimble® Access™ field software
- ▶ EMPOWER module compatible

**Learn more:**  
[geospatial.trimble.com/TSC5](https://geospatial.trimble.com/TSC5)

# Trimble TSC5 CONTROLLER

## PHYSICAL SPECIFICATIONS

|         |  |
|---------|--|
| Size    | 287.1 mm x 175.6 mm x 43.9 mm (11.3" x 6.9" x 1.7")  |
| Weight  | 934 g (2.06 lb) excluding optional removable battery, EMPOWER module, pole bracket and other accessories |
| Housing | PC-EXL9330 case with TPU-Texin990 overmold   |

## ENVIRONMENTAL SPECIFICATIONS (MEETS OR EXCEEDS)

|                                   |   |
|-----------------------------------|---|
| Operating Temperature             | MIL-STD-810H, Method 501.7 & 502.7, Procedure II<br>-30 °C to 60 °C (-22 °F to 140 °F)  |
| Storage temperature               | MIL-STD-810H, Method 501.7 & 502.7, Procedure I<br>-40 °C to 70 °C (-40 °F to 158 °F)   |
| Startup temperature               | -20 °C to +60 °C (-4 °F to 140 °F)  |
| AC adapter / charging temperature | 0 °C to +40 °C (32 °F to 104 °F)  |
| Dust                              | IP6x: 8 hours with blowing talcum powder (IEC 60529)  |
| Water                             | IPx5: Water Jet 6.3 mm diameter @ 3 minute, 12.5 liter/minute (IEC 60529)   |
| Transit Drop                      | MIL-STD-810H, Method 516.8, Procedure IV<br>26 drops (each face, edge & corner) at room temperature from 1.22 m (4 ft) onto concrete<br>6 faces at low and high temps (-30 °C and 60 °C (-22 °F and 140 °F))<br>Ball Drop similar to IEC 60950-1, 50 mm steel ball dropped 0.5 m on touch panel only        |
| Humidity                          | MIL-STD-810H, Method 507.6 Procedure II<br>90% RH temp cycle +30 °C / +60 °C (+86 °F / +140 °F)   |
| Vibration                         | MIL-STD-810H, Method 514.8 Procedures I & II<br>General Minimum Integrity and Loose Cargo Test  |
| Altitude (low pressure)           | MIL-STD-810H, Method 500.6, Procedures I (storage), II (operating) & III (rapid decompression)<br>Operational at 9,144 m (30,000 ft) at 5 °C / 41 °F<br>Storage at 12,192 m (40,000 ft) at -30 °C / -22 °F<br>Rapid Decompression 2,438m (8,000 ft) to 12,192 m (40,000 ft) in <15 seconds at 25 °C / 77 °F |
| Temperature Shock                 | MIL-STD-810H, Method 503.7, Procedure I-C<br>Survives cycles between -30 °C and 60 °C (-22 °F and 140 °F)   |
| Solar Exposure                    | MIL-STD-810H, Method 505.7, Procedures I & II<br>Survives prolonged solar exposure  |
| Salt Spray                        | ASTM B117 5% salt solution, 96 hrs  |

## SECURITY

Application security, hardware token, Qualcomm® processor security, hardware backed encryption, storage encryption, TLS 1.3, platform hardening, quarterly Android security patches.

## CONFIGURATIONS

|                        |  |
|------------------------|--|
| EMPOWER module support | 1 x module bay supports EM100 GNSS radio module, EM120 2.4 GHz receiver module, EM11x barcode/RFID modules, and more |
|------------------------|--|

## CERTIFICATIONS

|                        |   |
|------------------------|---|
| Country certifications | Australia, Brazil, Canada, China, EU, India, Japan, Mexico, New Zealand, Russia, South Africa, South Korea, Taiwan, Thailand, UAE United Arab Emirates, UK and USA. |
| Environmental          | Conflict Minerals, China RoHS 2.0, EU RoHS 2.0, EU REACH  |

## COMPATIBLE FIELD SOFTWARE

|  |
|--|
| Trimble Access™ version 2021 and later |
| Android 10 applications                |

## ELECTRICAL SPECIFICATIONS

|                             |  |
|-----------------------------|--|
| Processor                   | Qualcomm SDA660  |
| Memory                      | 4 GB LPDDR4X RAM   |
| Storage                     | 64 GB Flash eMMC   |
| Operating System            | Android 10   |
| Batteries                   | Internal Li-Ion 4530mAh/7.2 V nominal capacity<br>Optional user replaceable Li-Ion battery pack  |
| Battery life                | RTS usage 16 hours or GNSS RTK usage 18 hours (depending on display settings, connectivity, data processing, ambient temperature, etc.)<br>Fully charged battery can support sleep state for 7.2 days and off for more than 175 days |
| Charging time               | Full-charge 3.5 hours, 0-50 % charge in 1.5 hours  |
| Power input                 | 5 V/9 V 3A charging, USB-PD compliant with Type C connector  |
| Notification LED            | Battery status, Shift, Fn, Ctrl, AG, Caps Lock, Search, and Cursor Lock LED indicator  |
| Display                     | 5" landscape HD (1280x720) 300 DPI transfective type TFT Display, 365 cd/m² sunlight readable LED backlight, projective capacitive multi-touch touchscreen with stylus, finger, and glove modes                                      |
| Keyboard                    | International backlit alpha-numeric and QWERTY with Fn keys (12 physical + multiple Fn, Shift & AG key combinations)   |
| Audio                       | 1 W mono speaker and dual microphones with noise cancelling technology   |
| External speaker/microphone | USB-C or Bluetooth headsets supported  |
| I/O                         | USB-C for charging and USB 2.0 data transfer<br>USB-PD 2.0 supports charger inputs up to 9 V/3 A   |
| WWAN                        | Worldwide LTE 4G in regions where it is available, and compatible with 3G networks.<br>AT&T and Verizon certified. MicroSIM card.  |
| Wi-Fi                       | 2.4 GHz 802.11 b/g/n/ac & 5.0 GHz 802.11 a/n/ac  |
| Bluetooth®                  | Bluetooth 5 classic & BLE 5, Class 1   |
| Camera                      | Rear camera: 13 MP auto-focus with LED flash   |
| GNSS                        | Integrated Sierra Wireless EM7565; L1 C/A, GPS/GLONASS/BeiDou/Galileo/QZSS   |
| Sensors                     | Ambient light sensor, e-Compass, accelerometer, gyro sensor  |

Specifications subject to change without notice.



Precision Laser & Instrument, Inc.  
85 11th Street | Ambridge, PA 15003  
724-266-1600 | [PLI@laserinst.com](mailto:PLI@laserinst.com)

Contact your local Trimble Authorized Distribution Partner for more information

**NORTH AMERICA**  
Trimble Inc.  
10368 Westmoor Dr  
Westminster CO 80021  
USA

**EUROPE**  
Trimble Germany GmbH  
Am Prime Parc 11  
65479 Raunheim  
GERMANY

**ASIA-PACIFIC**  
Trimble Navigation  
Singapore PTE Limited  
3 HarbourFront Place  
#13-02 HarbourFront Tower Two  
Singapore 099254  
SINGAPORE